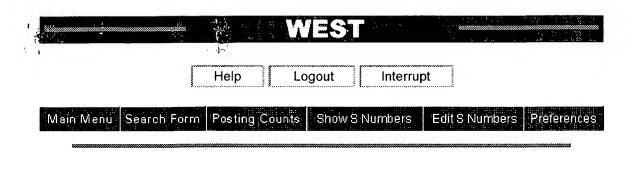
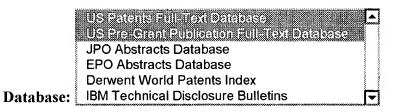
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# Search Results Terms Documents 19 and 14 4



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Search History

Today's Date: 9/16/2001

DB Name	<u>Query</u>	Hit Count	Set Name
USPT,PGPB	19 and 14	4	<u>L10</u>
USPT,PGPB	18 or 17 or 16 or 15	6753	<u>L9</u>
USPT,PGPB	(((435/193)!.CCLS.))	759	<u>L8</u>
USPT,PGPB	(((435/183)!.CCLS.))	1056	<u>L7</u>
USPT,PGPB	(((435/7.1)!.CCLS.))	3213	<u>L6</u>
USPT,PGPB	((435/4)!.CCLS.)	2299	<u>L5</u>
USPT,PGPB	l3 and @pd<19980205	48	<u>L4</u>
USPT,PGPB	12 and (plant or Embryophyta)	88	<u>L3</u>
USPT,PGPB	11 and inhibit\$7	159	<u>L2</u>
USPT,PGPB	tryptophan synthase or Indoleglycerol phosphate aldolase or Tryptophan synthetase or Tryptophan desmolase or Tryptophan synthetase	195	<u>L1</u>

## WEST

#### **Generate Collection**

#### **Search Results -** Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 5665537 A

L10: Entry 1 of 4

File: USPT

Sep 9, 1997

US-PAT-NO: 5665537

DOCUMENT-IDENTIFIER: US 5665537 A

TITLE: Herpes simplex virus type 2-glycoprotein G proteins and polypeptides

DATE-ISSUED: September 9, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Parkes; Deborah Lynn Oakland CA N/A N/A Coates; Stephen Ralph Orinda CA N/A N/A

US-CL-CURRENT: 435/5; 435/69.3, 435/69.7, 435/7.1, 435/7.92, 436/518, 436/811, 530/350, 530/388.3

Full Title Citation Front Review Classification Date Reference Claims KWC Draw Desc Image

#### ☐ 2. Document ID: US 5624805 A

L10: Entry 2 of 4

File: USPT

Apr 29, 1997

US-PAT-NO: 5624805

DOCUMENT-IDENTIFIER: US 5624805 A

TITLE: Uses for antibodies which bind to human somatomedin carrier protein

subunits

DATE-ISSUED: April 29, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Spencer; Emerald M. San Francisco CA N/A N/A Talkington-Verser; Carol San Rafael CA N/A N/A

US-CL-CURRENT: 435/7.1; 436/501, 530/395, 530/412

Full Title Citation Front Review Classification Date Reference KMC Draw. Desc Image

#### ☐ 3. Document ID: US 5494816 A

L10: Entry 3 of 4

File: USPT

Feb 27, 1996

DOCUMENT-IDENTIFIER: US 5494816 A

TITLE: Enhanced indole biosynthesis

DATE-ISSUED: February 27, 1996

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Murdock; Douglas C. Thousand Oaks CA N/A N/A

US-CL-CURRENT: 435/183; 435/122, 435/156, 435/252.3, 435/252.33, 435/252.34, 435/320.1, 435/69.1, 435/71.1, 536/22.1, 536/23.1, 536/23.2, 536/23.7

Full Title Citation Front Review Classification Date Reference KMC Draw Desc Image

#### ☐ 4. Document ID: US 5180873 A

L10: Entry 4 of 4 File: USPT Jan 19, 1993

US-PAT-NO: 5180873

DOCUMENT-IDENTIFIER: US 5180873 A

TITLE: Transformation of plants to introduce closely linked markers

DATE-ISSUED: January 19, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Jorgensen; Richard A. Berkeley CA N/A N/A

US-CL-CURRENT: 800/266; 435/183, 435/69.1, 47/DIG.1, 800/274, 800/298, 800/303

Full Title Citation Front Review Classification Date Reference KMC Draw. Desc Image

Generate Collection

Terms	Documents
19 and 14	4

Display 10 Documents, starting with Document: 4

Display Format: CIT Change Format

#### **Generate Collection**

#### **Search Results -** Record(s) 1 through 48 of 48 returned.

1. Document ID: US 5681818 A

L4: Entry 1 of 48

File: USPT

Oct 28, 1997

US-PAT-NO: 5681818

DOCUMENT-IDENTIFIER: US 5681818 A

TITLE: Therapeutic uses of human somatomedin carrier proteins

DATE-ISSUED: October 28, 1997

INVENTOR - INFORMATION:

NAME

CITY

STATE ZIP CODE

N/A

COUNTRY

Spencer; Emerald Martin

San Francisco

CA N/A N/A

Talkington-Verser; Carol

San Rafael

CA

N/A

US-CL-CURRENT: 514/12

Full Title Citation Front Review Classification Date Reference

KWIC Draw, Desc Image

2. Document ID: US 5681737 A

L4: Entry 2 of 48

File: USPT

Oct 28, 1997

US-PAT-NO: 5681737

DOCUMENT-IDENTIFIER: US 5681737 A

TITLE: Detection system for mutagens that also identifies mutagenic changes

DATE-ISSUED: October 28, 1997

INVENTOR - INFORMATION:

NAME Gee; Pauline CITY

STATE

ZIP CODE

COUNTRY

Maron; Dorothy M.

Berkeley Orinda

CA CA

N/A N/A

N/A N/A

Ames; Bruce N.

Berkeley

CA

N/A

N/A

US-CL-CURRENT: 435/252.3; 435/252.8, 435/320.1, 536/23.7

Full Title Citation Front Review Classification Date Reference

KWIC Draw, Desc Image

3. Document ID: US 5674992 A

L4: Entry 3 of 48

File: USPT

Oct 7, 1997

DOCUMENT-IDENTIFIER: US 5674992 A

TITLE: CDNA encoding a recA homolog in eukaryotes

DATE-ISSUED: October 7, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Jagendorf; Andre Ithaca NY N/A N/A

Cerutti; Heriberto Durham NC N/A N/A

US-CL-CURRENT: 536/23.6



4. Document ID: US 5670341 A

L4: Entry 4 of 48 File: USPT Sep 23, 1997

US-PAT-NO: 5670341

DOCUMENT-IDENTIFIER: US 5670341 A

TITLE: DNA vectors, hosts, probes and recombinant methods of preparing human somatomedin-like carrier proteins or polypeptides

DATE-ISSUED: September 23, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Spencer; Emerald Martin San Francisco CA N/A N/A Talkington-Verser; Carol San Rafael CA N/A N/A

US-CL-CURRENT: 435/69.4; 435/252.3, 435/252.8, 435/320.1, 530/350, 530/399, 536/23.4, 536/23.51

Full Title Citation Front Review Classification Date Reference KMC Draw. Desc Image

5. Document ID: US 5665537 A

L4: Entry 5 of 48 File: USPT Sep 9, 1997

US-PAT-NO: 5665537

DOCUMENT-IDENTIFIER: US 5665537 A

TITLE: Herpes simplex virus type 2-glycoprotein G proteins and polypeptides

DATE-ISSUED: September 9, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Parkes; Deborah Lynn Oakland CA N/A N/A Coates; Stephen Ralph Orinda CA N/A N/A

US-CL-CURRENT: 435/5; 435/69\_3, 435/69\_7, 435/7\_1, 435/7\_92, 436/518, 436/811, 530/350, 530/388\_3

Full Title Citation Front Review Classification Date Reference

KMC Draw Desc Image

6. Document ID: US 5656457 A

L4: Entry 6 of 48

File: USPT

CA

N/A

Aug 12, 1997

US-PAT-NO: 5656457

DOCUMENT-IDENTIFIER: US 5656457 A

TITLE: DNA sequence for the unique sequence herpes simplex virus type 2-glycoprotein G protein and method of expressing said unique sequence of HSV-2qG

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Parkes; Deborah Lynn Oakland CA N/A N/A Coates; Stephen Ralph Orinda

US-CL-CURRENT: 435/69.3; 435/252.31, 435/252.33, 435/254.11, 435/325, 435/348, 435/419, 435/69.1, 536/23.1, 536/23.72

Full Title Citation Front Review Classification Date Reference

KWIC Draw, Desc Image

N/A

7. Document ID: US 5625136 A

L4: Entry 7 of 48

File: USPT

Apr 29, 1997

Apr 29, 1997

US-PAT-NO: 5625136

DOCUMENT-IDENTIFIER: US 5625136 A

TITLE: Synthetic DNA sequence having enhanced insecticidal activity in maize

DATE-ISSUED: April 29, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Koziel; Michael G.	Cary	NC	N/A	N/A
Desai; Nalini M.	Cary	NC	N/A	N/A
Lewis; Kelly S.	Hillsborough	NC	N/A	N/A
Kramer; Vance C.	Hillsborough	NC	N/A	N/A
Warren; Gregory W.	Cary	NC	N/A	N/A
Evola; Stephen V.	Apex	NC	N/A	N/A
Crossland; Lyle D.	Chapel Hill	NC	N/A	N/A
Wright; Martha S.	Cary	NC	N/A	N/A
Merlin; Ellis J.	Raleigh	NC	N/A	N/A
Launis; Karen L.	Franklinton	NC	N/A	N/A
Rothstein; Steven J.	Guelph	N/A	N/A	CAX
Bowman; Cindy G.	Cary	NC	N/A	N/A
Dawson; John L.	Chapel Hill	NC	N/A	N/A
Dunder; Erik M.	Chapel Hill	NC	N/A	N/A
Pace; Gary M.	Cary	NC	N/A	N/A
Suttie; Janet L.	Raleigh	NC	N/A	N/A

US-CL-CURRENT: 800/302; 435/69.1, 536/23.1, 536/23.71



8. Document ID: US 5624805 A

L4: Entry 8 of 48

US-PAT-NO: 5624805 DOCUMENT-IDENTIFIER: US 5624805 A

TITLE: Uses for antibodies which bind to human somatomedin carrier protein

File: USPT

subunits

DATE-ISSUED: April 29, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Spencer; Emerald M. San Francisco CA N/A N/A Talkington-Verser; Carol San Rafael CA N/A N/A

US-CL-CURRENT: 435/7.1; 436/501, 530/395, 530/412

Full Title	Citation	Front	Review	Classification	Date	Reference	KMMC Draw Desc Imag

#### 9. Document ID: US 5618710 A

L4: Entry 9 of 48

File: USPT

Apr 8, 1997

US-PAT-NO: 5618710

DOCUMENT-IDENTIFIER: US 5618710 A

TITLE: Crosslinked enzyme crystals

DATE-ISSUED: April 8, 1997

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Navia; Manuel A. Lexington MA N/A N/A St. Clair; Nancy L. Charlestown MA N/A N/A

US-CL-CURRENT: 435/174; 424/94\_1, 424/94\_6, 424/94\_63, 435/109, 435/195, 435/198, 435/212, 435/218, 435/41, 435/817, 436/518, 530/413, 530/810

Full Title Citation Front Review Classification Date Reference

KWIC Drawi Desc Image

10. Document ID: US 5571710 A

L4: Entry 10 of 48

File: USPT

Nov 5, 1996

US-PAT-NO: 5571710

DOCUMENT-IDENTIFIER: US 5571710 A

TITLE: CDNA coding for carcinoembryonic antigen

DATE-ISSUED: November 5, 1996

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Barnett; Thomas R. N/A East Haven CTN/A Elting; James J. Madison CTN/A N/A Kamarck; Michael E. Bethany CTN/A N/A

US-CL-CURRENT: 435/252\_33; 435/243, 435/320\_1, 435/419, 435/6, 536/23\_1, 536/23\_5, 536/24\_3, 536/24\_31

Full Title Citation Front Review Classification Date Reference

KWMC Draw Desc Image

11. Document ID: US 5516936 A

L4: Entry 11 of 48

File: USPT

May 14, 1996

DOCUMENT-IDENTIFIER: US 5516936 A

TITLE: Inhibitors of kynureninase

DATE-ISSUED: May 14, 1996

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Phillips; Robert S. Athens GA N/A N/A Dua; Rajesh K. Ann Arbor MI N/A N/A

US-CL-CURRENT: 562/430; 562/11, 562/443

Full Title Citation Front Review Classification Date Reference KMC Draw Desc Image

12. Document ID: US 5494816 A

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L4: Entry 12 of 48 File: USPT Feb 27, 1996

US-PAT-NO: 5494816

DOCUMENT-IDENTIFIER: US 5494816 A

TITLE: Enhanced indole biosynthesis

DATE-ISSUED: February 27, 1996

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Murdock; Douglas C. Thousand Oaks CA N/A N/A

US-CL-CURRENT: 435/183; 435/122, 435/156, 435/252.3, 435/252.33, 435/252.34, 435/320.1, 435/69.1, 435/71.1, 536/22.1, 536/23.1, 536/23.2, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | KWIC | Draw Desc | Image

13. Document ID: US 5484711 A

L4: Entry 13 of 48 File: USPT Jan 16, 1996

US-PAT-NO: 5484711

DOCUMENT-IDENTIFIER: US 5484711 A

TITLE: DNA sequences, recombinant DNA molecules and processes for producing

lipocortins III, IV, V & VI

DATE-ISSUED: January 16, 1996

INVENTOR-INFORMATION:

NAME CITY ZIP CODE COUNTRY STATE Wallner: Barbara P. Cambridge MA N/AN/A Pepinsky; R. Blake Watertown MA N/A N/A Browning; Jeffrey L. Cambridge MA N/A N/A

US-CL-CURRENT: 435/69.2; 435/252.3, 435/252.31, 435/252.33, 435/252.34, 435/252.35, 435/254.11, 435/320.1, 536/23.5, 536/24.31

Full Title Citation Front Review Classification Date Reference

KMC Draw Desc Image

14. Document ID: US 5472691 A

L4: Entry 14 of 48

File: USPT

Dec 5, 1995

US-PAT-NO: 5472691

DOCUMENT-IDENTIFIER: US 5472691 A

TITLE: Superoxide dismutase

DATE-ISSUED: December 5, 1995

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Marklund; Stefan Umea N/A N/A SEX

Marklund; Stefan Umea N/A N/A SEX Edlund; Thomas Umea N/A N/A SEX

US-CL-CURRENT: 424/94\_4; 435/189

Full Title Citation Front Review Classification Date Reference

KWIC Draw Desc Image

15. Document ID: US 5442104 A

L4: Entry 15 of 48 File: USPT Aug 15, 1995

US-PAT-NO: 5442104

DOCUMENT-IDENTIFIER: US 5442104 A

TITLE: Inhibitors of kynureninase

DATE-ISSUED: August 15, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Phillips; Robert S. Athens GA N/A N/A Dua; Rajesh K. Athens GA N/A N/A

US-CL-CURRENT: 562/430; 560/12, 560/13

Full Title Citation Front Review Classification Date Reference MMC Draw Desc Image

16. Document ID: US 5403484 A

L4: Entry 16 of 48 File: USPT Apr 4, 1995

DOCUMENT-IDENTIFIER: US 5403484 A

TITLE: Viruses expressing chimeric binding proteins

DATE-ISSUED: April 4, 1995

INVENTOR - INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ladner; Robert C.	Ijamsville	MD	N/A	N/A
Guterman; Sonia K.	Belmont	MA	N/A	N/A
Roberts; Bruce L.	Milford	MA	N/A	N/A
Markland; William	Milford	MA	N/A	N/A
Ley; Arthur C.	Newton	MA	N/A	N/A
Kent; Rachel B.	Boxborough	MA	N/A	N/A

US-CL-CURRENT: 435/235.1; 435/252.3, 435/320.1, 435/69.7, 530/350, 536/23.4

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Full Title	Citation	Front	Review	Classification	Date	Reference	KWIC Drawi Desc Image

17. Document ID: US 5401658 A

L4: Entry 17 of 48

File: USPT

Mar 28, 1995

US-PAT-NO: 5401658

DOCUMENT-IDENTIFIER: US 5401658 A

TITLE: Vectors and methods for making such vectors and for expressing cloned

genes

DATE-ISSUED: March 28, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Fiers; Walter C. Destelbergen N/A N/A BEX Remaut; Erik R. Vinderhoute N/A N/A BEX

US-CL-CURRENT: 435/252\_33; 435/320\_1

Full	Title	Citation	Front	Review	Classification	Date	Reference	KWIC	Draw Desc	Image

18. Document ID: US 5401642 A

L4: Entry 18 of 48 File: USPT Mar 28, 1995

DOCUMENT-IDENTIFIER: US 5401642 A

TITLE: Vectors and methods for making such vectors and for expressing cloned

genes

DATE-ISSUED: March 28, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Fiers; Walter C. Destelbergen N/A N/A BEX Remaut; Erik R. Vinderhoute N/A N/A BEX

US-CL-CURRENT: 435/69.1; 435/320.1, 435/69.5, 435/69.51, 435/69.52, 435/69.6

Full Title Citation Front Review Classification Date Reference WMC Draw Desc Image

19. Document ID: US 5395767 A

L4: Entry 19 of 48 File: USPT Mar 7, 1995

US-PAT-NO: 5395767

DOCUMENT-IDENTIFIER: US 5395767 A

TITLE: Gene for ataxia-telangiectasia complementation group D (ATDC)

DATE-ISSUED: March 7, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Murnane; John P. San Francisco CA N/A N/A Painter; Robert B. Burlingame CA N/A N/A Kapp; Leon N. San Rafael CA N/A N/A Yu; Loh-Chung Redwood City CA N/A N/A

US-CL-CURRENT: 435/320.1; 435/69.1, 536/23.1, 536/24.3

Full Title Citation Front Review Classification Date Reference KMC Draw Desc Image

20. Document ID: US 5387676 A

L4: Entry 20 of 48 File: USPT Feb 7, 1995

DOCUMENT-IDENTIFIER: US 5387676 A

TITLE: MN gene and protein

DATE-ISSUED: February 7, 1995

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY CSX Zavada; Jan Bratislava N/A N/A CSX Pastorekova; Silvia Bratislava N/A N/APastorek; Jaromir Bratislava CSX N/A N/A

US-CL-CURRENT: 536/23.5; 435/252.3, 435/254.11, 435/254.2, 435/320.1, 435/325, 435/348, 435/419, 435/69.1, 536/24.31



KVMC - Drawi Desc - Image

#### 21. Document ID: US 5374543 A

L4: Entry 21 of 48

US-PAT-NO: 5374543

DOCUMENT-IDENTIFIER: US 5374543 A

TITLE: Enhanced indole biosynthesis

DATE-ISSUED: December 20, 1994

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Murdock; Douglas C. Thousand Oaks CA N/A N/A

US-CL-CURRENT: 435/122; 435/156, 435/252.3, 435/252.33, 435/252.34, 435/320.1, 435/414, 435/419, 435/69.1, 435/71.1, 536/22.1, 536/23.1, 536/23.2, 536/23.7

Full Title Citation Front Review Classification Date Reference

KWIC Drawi Desc Image

#### 22. Document ID: US 5298489 A

L4: Entry 22 of 48

File: USPT

File: USPT

Mar 29, 1994

Dec 20, 1994

DOCUMENT-IDENTIFIER: US 5298489 A

<code>TITLE: DNA</code> sequences recombinant <code>DNA</code> molecules and processes for producing lipocortins <code>III, IV, V</code> and <code>VI</code>

DATE-ISSUED: March 29, 1994

INVENTOR-INFORMATION:

CITY NAME STATE ZIP CODE COUNTRY Wallner; Barbara P. Cambridge MA N/A N/A Pepinsky; R. Blake Watertown MA N/AN/A Browning; Jeffrey L. Cambridge MA N/AN/A

US-CL-CURRENT: 514/12; 435/320.1, 435/69.1, 530/350, 536/23.5

Full Title Citation Front Review Classification Date Reference				******	.,			
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: KVMC | Draw Desc | Image

#### 23. Document ID: US 5279951 A

L4: Entry 23 of 48 File: USPT Jan 18, 1994

US-PAT-NO: 5279951

DOCUMENT-IDENTIFIER: US 5279951 A

TITLE: Cultivation of transformed microorganisms

DATE-ISSUED: January 18, 1994

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Terasawa; Masato Ami N/AN/A JPX Yamagata; Hisashi Toride N/A JPX N/AYukawa; Hideaki Ami N/A N/A JPX Kurusu; Yasurou Ami N/AJPX N/A Fukushima; Makiko Ami N/A N/A JPX

US-CL-CURRENT: 435/69.1; 435/252.33, 435/320.1, 435/849, 536/23.2, 536/23.7, 536/24.1

Full Title Citation Front Review Classification Date Reference

KWMC | Drawn Desc | Image |

### 24. Document ID: US 5278057 A

L4: Entry 24 of 48

File: USPT

Jan 11, 1994

DOCUMENT-IDENTIFIER: US 5278057 A

TITLE: Transformation of plants to introduce closely linked markers

DATE-ISSUED: January 11, 1994

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Jorgensen; Richard A. Berkeley CA N/A N/A

US-CL-CURRENT: 800/266; 435/69.1, 435/70.1, 800/306, 800/314, 800/317.4

Full Title Citation Front Review Classification Date Reference KWIC Draw Desc Image

25. Document ID: US 5274087 A

L4: Entry 25 of 48

File: USPT Dec 28, 1993

US-PAT-NO: 5274087

DOCUMENT-IDENTIFIER: US 5274087 A

TITLE: cDNA coding for carcinoembryonic antigen (CEA)

DATE-ISSUED: December 28, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Barnett; Thomas R. East Haven CTN/A N/AElting; James J. Madison N/A N/A СT Kamarck; Michael E. Bethany CTN/A N/A

US-CL-CURRENT: 536/23.5; 435/320.1, 435/6, 536/24.3, 536/24.31

Full Title Citation Front Review Classification Date Reference KWC Draw Desc Image

26. Document ID: US 5248603 A

L4: Entry 26 of 48 File: USPT Sep 28, 1993

US-PAT-NO: 5248603

DOCUMENT-IDENTIFIER: US 5248603 A

TITLE: Superoxide dismutase

DATE-ISSUED: September 28, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Marklund; Stefan Ume.ang. N/A N/A SEX Edlund; Thomas Ume.ang. N/A N/A SEX

US-CL-CURRENT: 435/189; 435/320.1, 435/358, 536/23.2

Full Title Citation Front Review Classification Date Reference KMC Draw Desc Image

27. Document ID: US 5231009 A

L4: Entry 27 of 48

File: USPT

Jul 27, 1993

US-PAT-NO: 5231009

DOCUMENT-IDENTIFIER: US 5231009 A

TITLE: CDNAS coding for members of the carcinoembryonic antigen family

DATE-ISSUED: July 27, 1993

INVENTOR - INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barnett; Thomas R.	East Haven	CT	N/A	N/A
Elting; James J.	Madison	CT	N/A	N/A
Kamarck; Michael E.	Bethany	CT	N/A	N/A
Kretschmer; Axel W.	Wulfrath	N/A	N/A	DEX

US-CL-CURRENT: 435/371; 435/252\_3, 536/23\_5

Full Title Citation Front Review Classification Date Reference

KMC: Draw Desc Image

28. Document ID: US 5223409 A

L4: Entry 28 of 48 File: USPT Jun 29, 1993

US-PAT-NO: 5223409

DOCUMENT-IDENTIFIER: US 5223409 A

TITLE: Directed evolution of novel binding proteins

DATE-ISSUED: June 29, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ladner; Robert C.	Ijamsville	MD	N/A	N/A
Guterman; Sonia K.	Belmont	MA	N/A	N/A
Roberts; Bruce L.	Milford	MA	N/A	N/A
Markland; William	Milford	MA	N/A	N/A
Ley; Arthur C.	Newton	MA	N/A	N/A
Kent; Rachel B.	Boxborough	MA	N/A	N/A

US-CL-CURRENT: 435/69.7; 435/252.3, 435/320.1, 435/472, 435/5, 435/69.1, 530/387.3, 530/387.5

Full Title Citation Front Review Classification Date Reference KMIC Draw Desc Image

29. Document ID: US 5212072 A

L4: Entry 29 of 48 File: USPT May 18, 1993

DOCUMENT-IDENTIFIER: US 5212072 A

TITLE: Polypeptides complementary to peptides or proteins having an amino acid sequence or nucleotide coding sequence at least partially known and methods of design therefor

DATE-ISSUED: May 18, 1993

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Blalock; J. Edwin Birmingham ALN/A N/ABost; Kenneth L. Birmingham ALN/A N/A Smith; Eric M. TXGalveston N/A N/A

US-CL-CURRENT: 435/69\_1; 435/6, 514/2, 530/333

Full Title	Citation Front	Review	Classification	Date Reference	KWC Draw Desc Image

30. Document ID: US 5200509 A

L4: Entry 30 of 48 File: USPT Apr 6, 1993

US-PAT-NO: 5200509

DOCUMENT-IDENTIFIER: US 5200509 A

TITLE: Human somatomedin carrier protein subunits and process for producing them; recombinant DNA molecules, hosts, processes and human somatomedin carrier protein-like polypeptides

DATE-ISSUED: April 6, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Spencer; Emerald M. San Francisco CA N/A N/A Talkington-Verser; Carol San Rafael CA N/A N/A

US-CL-CURRENT: 530/350; 530/395



31. Document ID: US 5198346 A

L4: Entry 31 of 48 File: USPT Mar 30, 1993

DOCUMENT-IDENTIFIER: US 5198346 A

TITLE: Generation and selection of novel DNA-binding proteins and polypeptides

DATE-ISSUED: March 30, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ladner; Robert C.	Ijamsville	MD	N/A	N/A
Guterman; Sonia K.	Belmont	MA	N/A	N/A
Kent; Rachel B.	Boxborough	MA	N/A	N/A
Ley; Arthur C.	Newton	MA	N/A	N/A

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1, 435/489

Full Title	Citation   F	Front Review	Classification	Date	Reference	KMC Draw Desc Image

32. Document ID: US 5187071 A

L4: Entry 32 of 48 File: USPT Feb 16, 1993

US-PAT-NO: 5187071

DOCUMENT-IDENTIFIER: US 5187071 A

TITLE: Method for the selective control of weeds, pests, and microbes

DATE-ISSUED: February 16, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Fischer; Randy S. Gainesville FL 32607 N/A Jensen; Roy A. Melrose FL 32666 N/A

US-CL-CURRENT: 435/32; 424/9\_2, 435/29, 514/119, 514/76

. Full .	Title	Citation	Front	Review	Classification	Date	Reference	KMC Draw Desc Image

#### 33. Document ID: US 5180873 A

L4: Entry 33 of 48 File: USPT Jan 19, 1993

US-PAT-NO: 5180873

DOCUMENT-IDENTIFIER: US 5180873 A

TITLE: Transformation of plants to introduce closely linked markers

DATE-ISSUED: January 19, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Jorgensen; Richard A. Berkeley CA N/A N/A

US-CL-CURRENT: 800/266; 435/183, 435/69.1, 47/DIG.1, 800/274, 800/298, 800/303

Full Title Citation Front Review Classification Date Reference

KWIC: Draw Desc Image

34. Document ID: US 5130245 A

L4: Entry 34 of 48

File: USPT

Jul 14, 1992

US-PAT-NO: 5130245

DOCUMENT-IDENTIFIER: US 5130245 A

TITLE: Superoxide dismutase

DATE-ISSUED: July 14, 1992

INVENTOR-INFORMATION:

NAME CITY

STATE ZIP CODE COUNTRY

Marklund; Stefan Edlund; Thomas

S-902 37 Ume.ang. S-902 39 Umea.ang. N/A N/A

N/A

SEX

N/A

SEX

US-CL-CURRENT: 435/189; 435/320\_1, 435/358, 536/23\_2

Full Title Citation Front Review Classification Date Reference

- KWIC | Draw Desc | Image

35. Document ID: US 5122599 A

L4: Entry 35 of 48

File: USPT

Jun 16, 1992

US-PAT-NO: 5122599

DOCUMENT-IDENTIFIER: US 5122599 A

TITLE: CDNAS coding for members of the carcinoembryonic antigen family

DATE-ISSUED: June 16, 1992

INVENTOR-INFORMATION:

NAME
Barnett; Thomas R.
Elting; James J.
Kamarck; Michael E.

Kretschmer; Axel W.

CITY
East Haven
Madison
Bethany

STATE ZIP
CT N/A
CT N/A
CT N/A

N/A

N/A

ZIP CODE COUNTRY
N/A N/A
N/A

N/A DEX

US-CL-CURRENT: 536/23.5; 435/320.1, 435/6, 536/23.53, 536/24.31

Wulfrath

Full Title Citation Front Review Classification Date Reference

KWIC Draw Desc Image

36. Document ID: US 5096815 A

L4: Entry 36 of 48

File: USPT

Mar 17, 1992

DOCUMENT-IDENTIFIER: US 5096815 A

TITLE: Generation and selection of novel DNA-binding proteins and polypeptides

DATE-ISSUED: March 17, 1992

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Ladner; Robert C. Ijamsville MD N/A N/A Guterman; Sonia K. Belmont N/A N/A MA Kent; Rachel B. Wilmington MA N/A N/A Ley; Arthur C. N/A Newton MA N/A

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1

Full Title	Oltation Front	Review	Classification	Date	Reference	KMC Draw Desc Image

37. Document ID: US 5081019 A

L4: Entry 37 of 48 File: USPT Jan 14, 1992

US-PAT-NO: 5081019

DOCUMENT-IDENTIFIER: US 5081019 A

TITLE: DNA sequences, recombinant DNA molecules and processes for producing

lipocortin-like polypeptides

DATE-ISSUED: January 14, 1992

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Wallner; Barbara P. Cambridge MA N/A N/A Pepinsky; R. Blake Watertown MA N/A N/A

US-CL-CURRENT: 435/69.2; 435/252.3, 435/320.1, 435/354, 435/360, 435/365.1, 536/23.2, 536/23.5, 536/24.1

Full Title Citation Front Review Classification Date Reference KWIC Draw. Desc Image

38. Document ID: US 5077195 A

L4: Entry 38 of 48 File: USPT Dec 31, 1991

DOCUMENT-IDENTIFIER: US 5077195 A

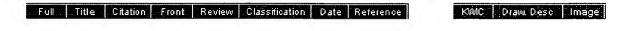
TITLE: Polypeptides complementary to peptides or proteins having an amino acid sequence or nucleotide coding sequence at least partially known and methods of design therefor

DATE-ISSUED: December 31, 1991

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Blalock; J. Edwin Birmingham ALN/A N/A Bost; Kenneth L. Birmingham ΑL N/A N/A Smith; Eric M. Galveston N/A TXN/A

US-CL-CURRENT: 435/6; 435/483, 435/5, 435/803, 436/501



39. Document ID: US 5021076 A

L4: Entry 39 of 48 File: USPT Jun 4, 1991

US-PAT-NO: 5021076

DOCUMENT-IDENTIFIER: US 5021076 A

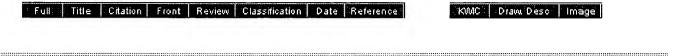
TITLE: Enhancement of nitrogen fixation with Bradyrhizobium japonicum mutants

DATE-ISSUED: June 4, 1991

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Kuykendall; Larry D. Columbia MD N/A N/A Hunter; William J. Fort Collins CO N/A N/A

US-CL-CURRENT: 71/7; 435/252\_2, 435/41, 435/878



40. Document ID: US 5004689 A

L4: Entry 40 of 48 File: USPT Apr 2, 1991

DOCUMENT-IDENTIFIER: US 5004689 A

TITLE: DNA sequences, recombinant DNA molecules and processes for producing

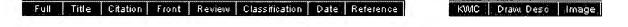
human gamma interferon-like polypeptides in high yields

DATE-ISSUED: April 2, 1991

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Fiers; Walter C. Destelbergen N/A N/A BEX Allet; Bernard Onex N/A N/A CHX

US-CL-CURRENT: 435/69.51; 435/252.3, 435/252.33, 435/320.1



41. Document ID: US 4950646 A

L4: Entry 41 of 48 File: USPT Aug 21, 1990

US-PAT-NO: 4950646

DOCUMENT-IDENTIFIER: US 4950646 A

TITLE: DNA sequences, recombinant DNA molecules and processes for producing

human lipocortin-like polypeptides

DATE-ISSUED: August 21, 1990

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Wallner; Barbara P. Cambridge MA N/A N/A Pepinsky; R. Blake Watertown MA N/A N/A Garwin; Jeffrey L. Bedford MΑ N/A N/A Schindler; Daniel G. Brighton N/A N/A MA Huang; Kuo-Sen Lexington MA N/A N/A

US-CL-CURRENT: 514/12; 514/350

Full Title Citation Front Review Classification Date Reference KMC Draw Desc Image

42. Document ID: US 4879224 A

L4: Entry 42 of 48 File: USPT Nov 7, 1989

DOCUMENT-IDENTIFIER: US 4879224 A

TITLE: DNA sequences, recombinant DNA molecules and processes for producing human phospholipase inhibitor polypeptides

DATE-ISSUED: November 7, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wallner; Barbara P.	Cambridge	MA	N/A	N/A
Pepinsky; R. Blake	Watertown	MA	N/A	N/A
Garwin; Jeffrey L.	Bedford	MA	N/A	N/A

US-CL-CURRENT: 435/68.1; 435/252.31, 435/252.33, 435/252.34, 435/252.35, 435/254.11, 435/254.2, 435/320.1, 435/325, 435/69.2, 536/23.2

:Full:	Title	Citation	Front	Review	Classification	Date	Reference

KWIC Draw Desc Image

43. Document ID: US 4874743 A

L4: Entry 43 of 48 File: USPT

Oct 17, 1989

US-PAT-NO: 4874743

DOCUMENT-IDENTIFIER: US 4874743 A

TITLE: DNA sequences, recombinant DNA molecules and processes for producing human phospholipase inhibitor-like polypeptides

DATE-ISSUED: October 17, 1989

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Wallner; Barbara P. Cambridge N/A N/A MA Pepinsky; R. Blake Watertown MA N/A N/A Garwin; Jeffrey L. Bedford MA N/A N/A

US-CL-CURRENT: 514/12; 530/350

Full Title Citation Front Review Classification Date Reference

\*KWIC | Draw Desc | Image

44. Document ID: US 4874702 A

L4: Entry 44 of 48

File: USPT

Oct 17, 1989

DOCUMENT-IDENTIFIER: US 4874702 A

TITLE: Vectors and methods for making such vectors and for expressive cloned

genes

DATE-ISSUED: October 17, 1989

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Fiers; Walter C. N/A N/A Destelbergen BEX Remaut; Rene Erik Vinderhoute N/AN/A BEX

US-CL-CURRENT: 435/91.41; 435/252.3, 435/252.33, 435/320.1, 435/69.3, 435/69.4, 435/69.51, 536/23.2, 536/23.5, 536/23.51 , 536/23.52, 536/24.1, 536/24.2

Full Title Citation Front Review Classification Date Reference

KWMC Draw Desc Image

45. Document ID: US 4863857 A

L4: Entry 45 of 48 File: USPT

Sep 5, 1989

US-PAT-NO: 4863857

DOCUMENT-IDENTIFIER: US 4863857 A

TITLE: Polypeptide complementary to peptides or proteins having an amino acid

sequence or nucleotide coding sequence at least partially known

DATE-ISSUED: September 5, 1989

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TXBlalock; J. Edwin Houston N/A N/ASmith; Eric M. Galveston ТX N/A N/A Bost; Kenneth L. N/A Galveston TXN/A

US-CL-CURRENT: 435/69\_1; 435/6, 435/68\_1, 435/69\_4, 435/803, 435/948, 436/501, 536/23\_1, 930/10, 930/120, 930/130, 930/141, 930/70, 930/80

Full: Title Citation Front Review Classification Date Reference

KWMC Draw Desc Image

46. Document ID: US 4758512 A

L4: Entry 46 of 48

File: USPT

Jul 19, 1988

DOCUMENT-IDENTIFIER: US 4758512 A

TITLE: Hosts and methods for producing recombinant products in high yields

DATE-ISSUED: July 19, 1988

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Goldberg; Alfred L. Brookline MA N/A N/AGoff; Stephen A. N/A Boston MA N/A Casson; Lawrence P. Sommerville N/A MA N/A

US-CL-CURRENT: 435/69.3; 435/471, 435/485, 435/488, 435/69.4, 435/69.51, 435/839, 435/849

Full Title Citation Front Review Classification Date Reference

KVMC Draw Desc Image

#### 47. Document ID: US 4716112 A

L4: Entry 47 of 48

File: USPT

Dec 29, 1987

US-PAT-NO: 4716112

DOCUMENT-IDENTIFIER: US 4716112 A

TITLE: Vectors for increased expression of cloned genes

DATE-ISSUED: December 29, 1987

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Panayotatos; Nikos Geneva N/A N/A CHX

US-CL-CURRENT: 435/69.1; 435/320.1, 435/69.2, 435/69.3, 435/69.51, 435/69.6, 536/23.1, 536/24.1

Full Title Citation Front Review Classification Date Reference

KWIC Draw Desc Image

#### 48. Document ID: US 4530901 A

L4: Entry 48 of 48

File: USPT

Jul 23, 1985

DOCUMENT-IDENTIFIER: US 4530901 A

TITLE: Recombinant DNA molecules and their use in producing human

interferon-like polypeptides

DATE-ISSUED: July 23, 1985

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Weissmann; Charles Zurich N/A N/A CHX

US-CL-CURRENT: 435/69.51; 435/252.3, 435/252.31, 435/252.33, 435/252.34, 435/254.11, 435/254.2, 435/320.1, 435/325, 435/475, 435/811, 435/832, 435/839, 435/849, 435/91.41, 536/23.52, 536/24.1, 930/10, 930/240

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E EMBRYOPHYTA/CT

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L7

L8

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L8 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:645638 HCAPLUS

DOCUMENT NUMBER: 129:326714

TITLE: The involvement of the gene trp from Agrobacterium

tumefaciens in the auxin-independent growth of

transformed carrot cells

AUTHOR(S): Kuznetsova, E. V.; Rekoslavskaya, N. I.; Salyaev, R.

K.; Gamanets, L. V.; Enikeev, A. E.

CORPORATE SOURCE: Siberian Division, Russian Academy of Sciences,

Kurchatov Institute of Atomic Energy, Irkutsk, 664033,

Russia

SOURCE: Russ. J. Plant Physiol. (1998), 45(5),

617-623

CODEN: RJPPE2; ISSN: 1021-4437

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal LANGUAGE: English

The activity of tryptophan synthase (TrpS) in the suspension culture of carrot (Daucus carrota L.) cells transformed with Agrobacterium tumefaciens, strain 8628, was 5-10 times higher that in wild-type cells. The contents of tryptophan and IAA were also higher in transformed cells. Elution patterns of TrpS from a DEAE-Toypearl column were similar for the bacterial TrpS and TrpS from transformed plant cells. Denaturing PAGE demonstrated the presence of two isoenzymes of TrpS in bacterial and transformed carrot cells and only a single isoenzyme in wild-type cells. TrpS from transformed cells cross-reacted with antibodies raised against bacterial TrpS. These antibodies inhibited the activity of TrpS from transformed cells more drastically than that from nontransformed cells. In wild-type cells, indole was a more effective precursor of auxin than tryptophan. The conclusion was drawn that the agrobacterial trp gene was expressed in transformed carrot cells.

L8 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1996:624137 HCAPLUS

DOCUMENT NUMBER: 125:270721

TITLE: Characterization of interfamilial somatic hybrids

between 5-methyltryptophan-resistant (5MT-resistant) rice (Oryza sativa L.) and 5MT-sensitive carrot

(Daucus carota L.); expression of resistance to 5MT by

the somatic hybrids

AUTHOR(S): Kisaka, Horoaki; Kisaka, Mayumi; Kameya, Toshiaki CORPORATE SOURCE: Inst. of Genetic Ecology, Tohoku Univ., Sendai,

980-77, Japan

SOURCE: Breed. Sci. (1996), 46(3), 221-226

CODEN: BRSCES

DOCUMENT TYPE: Journal LANGUAGE: English

The prodn. of the asym. hybrid plants between
5-methyltryptophan-resistant (5MT-resistant) O. sativa and 5MT-sensitive
D. carota was reported previously. Although morphol. of the somatic
hybrid plants closely resembled that of the parental carrot
plants, all of the somatic hybrids were resistant to 5MT. In the
present study, the expression of resistance to 5MT in cells of these
somatic hybrids was investigated. The calli induced from hybrid
plants and their parents grew in medium that contained a high
concn. of 5MT when those calli were supplied with anthranilic acid or
tryptophan. However, chorismic acid was not effective in reducing the
inhibition of cell growth by 5MT. The activities of anthranilate
synthase and tryptophan synthetase of cells of the
somatic hybrids and 5MT-resistant O. sativa were about 5 times and 2 times
as high as those of cells of 5MT-sensitive D. carota, resp. These results

indicated that anthranilate synthase was involved in the mechanism of resistance to 5MT. However, anthranilate synthase activities of the somatic hybrids and 5MT-resistant O. sativa were quite sensitive to feedback inhibition by tryptophan, as was that of 5MT-sensitive D. carota. Northern hybridization using a gene for anthranilate synthase as probe revealed that levels of expression of the gene in the somatic hybrids and 5MT-resistant O. sativa were higher than that of 5MT-sensitive D. carota. Furthermore, the somatic hybrids contained the gene for anthranilate synthase that originated from 5MT-resistant O. sativa. results suggested that the resistance to 5MT in cells of the somatic hybrids was transferred from that of 5MT-resistant O. sativa through cell fusion.

ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2001 ACS 1.8 1996:124395 HCAPLUS ACCESSION NUMBER:

124:198246 DOCUMENT NUMBER:

5-Fluoroindole resistance identifies tryptophan TITLE:

synthase beta subunit mutants in Arabidopsis thaliana

Barczak, Andrea J.; Zhao, Jianmin; Pruitt, Kim D.; AUTHOR(S):

Last, Robert L.

Boyce Thompson Institute Plant Research, Cornell CORPORATE SOURCE:

University, Ithaca, NY, 14853-1801, USA

Genetics (1995), 140(1), 303-13 SOURCE:

CODEN: GENTAE; ISSN: 0016-6731

DOCUMENT TYPE: Journal LANGUAGE: English

A study of the biochem. genetics of the Arabidopsis thaliana

tryptophan synthase beta subunit was initiated by characterization of mutants resistant to the inhibitor 5-fluoroindole. Thirteen recessive mutations were recovered that are allelic to trp2-1, a mutation in the more highly expressed of duplicate

tryptophan synthase beta subunit genes (TSB1). Ten of these mutations (trp2-2 through trp2-11) cause a tryptophan requirement (auxotrophs), whereas three (trp2-100 through trp2-102) remain tryptophan

prototrophs. The mutations cause a variety of changes in tryptophan synthase beta expression. For example, two

mutations (trp2-5 and trp2-8) cause dramatically reduced accumulation of TSB mRNA and immunol. detectable protein, whereas trp2-10 is assocd. with increased mRNA and protein. A correlation exists between the quantity of

mutant beta and wild-type alpha subunit levels in the trp2 mutant plants, suggesting that the synthesis of these proteins is coordinated or that the quantity or structure of the beta subunit

influences the stability of the alpha protein. The level of immunol. detectable anthranilate synthase alpha subunit protein is increased in the trp2 mutants, suggesting the possibility of regulation of anthranilate synthase levels in response to tryptophan limitation.

ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1995:929286 HCAPLUS

DOCUMENT NUMBER: 123:335212

Characterization of anthranilate synthetase and TITLE:

tryptophan synthase in a 5-methyltryptophan resistant

mutant (MR 1) of Zea mays 1.

Kang, Kwon Kyoo; Kameya, Toshiaki AUTHOR(S):

CORPORATE SOURCE: Institute of Genetic Ecology, Tohoku University,

Sendai, 980, Japan

SOURCE: Breed. Sci. (1995), Volume Date 1995, 45(3),

321-5

CODEN: BRSCES

DOCUMENT TYPE: Journal LANGUAGE: English

Anthranilate synthetase (AS) and tryptophan synthase AΒ

(TS) enzymes were analyzed for characterization of 5-methyl-tryptophan

(5MT)-resistant mutant plants (MR 1) in maize. There were no

significant differences in the level of AS activity between MR 1 and control seedlings when grown on MS medium without 5MT. However, the level of AS was 2 times higher in MR 1 seedlings grown on MS medium with 25 ppm 5MT than in control seedlings. The activity of AS from control seedlings was 50 % inhibited by 5 ppm tryptophan added to ext., while the enzyme from MR 1 seedlings was 50 % inhibited by 4 times higher concns. (20 ppm) of tryptophan. The level of TS activity in MR 1 was 4 times higher than that in control seedlings when cultured on MS medium. For a more detailed study on TS, the gene encoding the tryptophan synthase B subunit (TSB) was isolated from maize and sequenced. The gene showed high homol. to TSB isolated from other organisms. Northern hybridization anal. indicated that the gene expressed in MR  ${\bf 1}$ seedlings grown on MS medium at a higher level than in control seedlings. From the results, it was found that MR 1 plants showed differences in the character of AS, as reported previously in cell lines resistant to 5MT, and also notable diversity regarding TS activity when compared to control plants.

L8 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1990:117838 HCAPLUS

DOCUMENT NUMBER: 112:117838

TITLE: Effect of zinc supply on the growth of corn and

tryptophan-synthase activity

AUTHOR(S): Karakis, K. D.; Sidorshina, T. N.; Ermak, M. M.

CORPORATE SOURCE: Inst. Plant Physiol. Genet., Kiev, USSR SOURCE: Fiziol. Biokhim. Kul't. Rast. (1990), 22(1),

47-53

CODEN: FBKRAT; ISSN: 0532-9310

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB Excluding Zn from the nutrient soln. of 2-wk-old plants for 2 wk decreased the wt. of aerial parts and roots of corn by 20 and 30%, resp., and inhibited tryptophan synthase (I).

Within 1 day of restoration of Zn to the control level of 250 .mu.g/L the wt. and I were almost completely restored, but subsequently the

aftereffects of Zn deprivation again retarded growth and depressed I. One wk after restoration of Zn its contents in the roots, stems, and foliage were 207, 181, and 143%, resp., of controls continuously supplied with Zn. However, subsequently the Zn contents in the stressed plants lagged behind controls, as detd. in 35-day-old plants. The Zn restoration also transiently increased I, tryptophan and IAA which within a wk decreased below controls and then slowly increased again to approach controls by the day 35 of growth. The close correlation of I with Zn nutrition is illustrated by the rapid I reactivation by Zn restoration: a considerable I stimulation was recorded already after 1 h of Zn restoration.

L8 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1989:472994 HCAPLUS

DOCUMENT NUMBER: 111:72994

TITLE: Screening of tryptophan synthase inhibitors as leads

of herbicide candidates

AUTHOR(S): Shuto, Akira; Ohgai, Mayumi; Eto, Morifusa

CORPORATE SOURCE: Dep. Agric. Chem., Kyushu Univ., Fukuoka, 812, Japan

SOURCE: Nippon Noyaku Gakkaishi (1989), 14(1), 69-74

CODEN: NNGADV; ISSN: 0385-1559

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Of 53 heterocyclic compds. and 10 mercaptans tested, 4-(dimethylamino)-

(I), 4-(diethylamino)-, and 4-(N-methyl-N-phenylamino)pyridines and 2-mercaptobenzimidazole (II) inhibited tryptophan synthase from Escherichia coli most strongly, with median inhibitory concns. of 0.067, 0.061, 0.072, and 0.045 mM, resp. I

had no marked effect on whole plants, whereas II showed

considerable postemergence phytotoxicity.

L8 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1988:72204 HCAPLUS

DOCUMENT NUMBER: 108:72204

TITLE: Changes in content and metabolism of L-tryptophan and

indolic enzyme content in organs of wintering plants

AUTHOR(S): Stefl, Miroslav; Zemanova-Trckova, Marie

CORPORATE SOURCE: Czech.

SOURCE: Sb. Vys. Sk. Zemed. Praze, Fak. Agron., Rada A (

**1986**), A-45, 63-78

CODEN: SVZACW; ISSN: 0556-1221

DOCUMENT TYPE: Journal LANGUAGE: Czech

AB Cooling winter rape or wheat in the field or in the lab. to <4.degree. dehydrated their tissues and increased the bound/free tryptophan ratio. This instantly dissocd. the active .alpha.3.beta.4 oligomer of tryptophan synthase to inactive subunits 3.alpha. + 2.beta.2 and thereby stopped L-tryptophan formation. The concomitant cessation of L-tryptophan conversion to IAA increased the L-tryptophan content 2-4-fold. Natural rewarming in spring, or exptl. rewarming during hardening, rehydrated the tissues, reassocd. tryptophan synthase to the active form, and initiated L-tryptophan formation and conversion to IAA. This decreased the content of L-tryptophan and induced growth. Thus, the plants adapt to winter cold

L8 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1978:456507 HCAPLUS

DOCUMENT NUMBER: 89:56507

TITLE: Comparison of in vivo activity of L-tryptophan

by a simple regulation mechanism which does not involve feedback.

synthase in plants with a low and a high content of

L-tryptophan

AUTHOR(S): Eder, J.; Kutacek, M.; Kefeli, V. I.; Vackova, Kveta;

Langer, I.

CORPORATE SOURCE: Inst. Exp. Bot., Czech. Acad. Sci., Prague, Czech.

SOURCE: Biol. Plant. (1978), 20(3), 181-6 CODEN: BPABAJ; ISSN: 0006-3134

DOCUMENT TYPE: Journal LANGUAGE: English

AB The activity of L-tryptophan synthase (TS) was

compared in vivo in seedlings of plants high in L-tryptophan (L-Trp) (pea and kohlrabi) and low in this amino acid (corn). In corn the TS was studied both in the normal and in the opaque-2 genotype that forms an endosperm rich in essential amino acids. The activity of TS was detd. on the basis of the increase in radioactivity of the chromatog. purified L-Trp-14C, synthesized after vacuum infiltration of L-serine-U-14C and incubation for 24 h. As regards the TS activity in seedlings, corn is comparable to pea and kohlrabi; in contrast to this TS is less active in pea seedlings, which can be attributed to the presence of TS inhibitor (J. Chen and W. G. Boll, 1969). In ripening corn kernels and leaves adjacent to the ear the TS activity was .apprx.20 times lower than in seedlings. Differences in the activity of TS in the genotypes of corn could not be detected, even at the period of seed ripening. Therefore the differences in the L-Trp content in the plants cannot be explained by a differing activity of TS. TS is probably not the detg. regulator of L-Trp level in plants; its

L8 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1975:83000 HCAPLUS

ACCESSION NUMBER: 1975:83000 DOCUMENT NUMBER: 82:83000

TITLE: Measurement of the five enzymes which convert

activity is relatively high even in plants low in L-Trp.

chorismate to tryptophan in wheat plants (Triticum

aestivum cv Kalyansona)

Singh, Mahendra; Widholm, J. M. AUTHOR(S):

Dep. Agron., Univ. Illinois, Urbana, Ill., USA CORPORATE SOURCE:

Physiol. Plant. (1974), 32(3), 240-6 SOURCE:

CODEN: PHPLAI

Journal DOCUMENT TYPE: English LANGUAGE:

Conditions are described for measuring anthranilate synthetase, anthranilate-PRPP-phosphoriboxyl transferase, N-5'-phosphoribosyl anthranilate isomerase, indole-3-glycerol phosphate synthetase, and tryptophan synthetase in crude exts. from T. aestivum (wheat) plants. Only the last enzyme has been measured before in exts. from green plants. The extractable quantities of each enzyme in all plant parts at all stages of growth were sufficient to synthesize the amt. of tryptophan present within the same tissue in 48 hr. Anthranilate synthetase activity was the lowest of the 5 enzyme activities and was the only 1 inhibited by tryptophan in vitro, indicating that this enzyme may be the control point in tryptophan biosynthesis in wheat plants.

ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1974:45123 HCAPLUS

DOCUMENT NUMBER:

80:45123

TITLE:

Effect of free amino acids and related compounds on

the activity of plant enzymes. II.

Inhibition of tryptophan

synthase (E. C. 4 .2.1.20) from the

plants of Pisum sativum by amino acids and

growth substances

AUTHOR(S):

Horak, V.; Stefl, M.; Trcka, I. Chem. Ustav, Zemed. Fak., Prague-Suchdol, Czech.

SOURCE:

Collect. Czech. Chem. Commun. (1973),

38(11), 3532-8 CODEN: CCCCAK

DOCUMENT TYPE:

CORPORATE SOURCE:

Journal

LANGUAGE:

English

Inhibition of a partly purified enzyme prepn. by the 22 compds. studied AB depended considerably on the concn. of the inhibitor. Tryptophan, tyrosine, threonine, and SCN- had a strong and the other 10 amino acids and growth regulators (e.g., indoleacetic acid, giberellic acid) a weak inhibitory effect. Cysteine behaved at high concns. as a potent activator and at low concns. as an inhibitor. The inhibition kinetics for different amino acids were detd.

ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1972:123257 HCAPLUS

DOCUMENT NUMBER:

76:123257

TITLE:

Tryptophan synthase. Partial purification and some properties of the B-protein subunit from pea plants

(Pisum sativum cv Alaska) Chen, James; Boll, W. G.

AUTHOR(S): CORPORATE SOURCE:

Dep. Bot., McGill Univ., Montreal, Que., Can.

SOURCE:

Can. J. Bot. (1972), 50(3), 587-94

CODEN: CJBOAW

DOCUMENT TYPE:

Journal

LANGUAGE:

English

A method was developed for partial purification of the B-protein of AΒ tryptophan synthase (EC 4.2.1.20) from pea plants. The enzyme was purified 28-fold with .apprx.21% recovery. The purification procedure removed both A-protein activity, and denatured A-protein, from the B-protein. The B-protein was unstable and activity was not preserved by either dithiothreitol, mercaptoethanol, or L-cysteine. These sulfhydryl compds. were inhibitory at relatively low concns. Both pyridoxal phosphate and glycerol preserved

the activity to some extent. Glycerol itself was inhibitory. However, when the enzyme was stored with 25% glycerol in the cold the activity actually increased within the 1st 24 hr. The enzyme was most stable as a suspension in (NH4)2SO4 soln. The partially purified B-protein, in the absence of A-protein, catalyzed the condensation of indole and serine to tryptophan. Pyridoxal phosphate was required for max. activity while both pyridoxine phosphate and pyridoxamine phosphate were inactive in the system. The mol. wt. of the B-protein was estd. to be .apprx.101,000, which is close to that of the B-protein subunit of Escherichia coli. Differences in properties between bacterial, tobacco, and pea tryptophan synthase are discussed.

L8 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1971:107880 HCAPLUS

DOCUMENT NUMBER: 74:107880

TITLE: Effect of preliminary cesium-137 .gamma.-irradiation

on tryptophan and serine content in seeds of various

agricultural plants

AUTHOR(S): Revin, A. F.; Berezina, N. M. CORPORATE SOURCE: Inst. Biol. Fiz., Moscow, USSR SOURCE: Biol. Nauki (1971), (1), 54-6

CODEN: BINKBT

DOCUMENT TYPE: Journal LANGUAGE: Russian

An increase in tryptophan and serine content of seeds occurred after stimulating doses (100-1000 R, depending on the radiosensitivity of the plant) of 137Cs .gamma.-irradn. Suppressing doses (10-300 Ci) decreased the tryptophan content, markedly increased the serine content of radiosensitive cultures, but had no effect on the serine content of radioresistant cultures. .GAMMA.-Irradn. evidently disrupts biosynthesis of .beta.-indoleacetic acid, not only at the indoleacetaldehyde-.beta.-indoleacetic acid stage, but also at the stage of biosynthesis of tryptophan from serine and indole. Apparently, tryptophan synthetase is inhibited.